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Revised ERA Tech Memo

Susan McGroddy to: Ravi Sanga, Joe Goulet

05/28/2010 04:43 PM

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History: This message has been forwarded.

[attachment "May2010ERA Tech Memo Response to comments.doc" deleted by Ravi
Sanga/R10/USEPA/US]

[attachment "ERA memo draft final revisions May 2010.doc" deleted by Ravi Sanga/R10/USEPA/US]

Here is the revised ERA Tech Memo. Please let me know if you have any questions or concerns.

Thanks.

Susie

USEPA SF



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EWG Response to EPA Comments (May 2010)

Comment No.	Page No.	Section No.	Comment
1.	General		<p>New Comment: EPA requires a summary table in the ERA that shows each ROC and risks from each COPC to that resource. Please state that this will be included in the ERA.</p> <p>Response: Text was added in each risk characterization section.</p>
2.	3 and 27	2	<p>New Comment: Table 2-1 lists four bioassay endpoints. Table 3-2 lists three. Table 3-2 should also list the 4 bioassay endpoints.</p> <p>Response: The polychaete survival endpoint was removed because it is not an SMS endpoint.</p>
3.	4	2	<p>New Comment: For consistency, "based on survival, growth, and reproduction" must be added after tissue-residue TRVs to the first brown rockfish measure of effect cell.</p> <p>Response: Text was added.</p>
4.	8	2.1.1	<p>New Comment: Given the importance the EWG places on the sediment depth, the depth of the sediments collected must be added to the information for each study included in Table 2-2.</p> <p>Response: Sample depths were added to Table 2-2.</p>
5.	17	2.2	<p>New Comment: For the surface water exposure pathways, the COPC selection criteria include the notation "Tier II TRVs." No explanation or further mention of Tier II TRVs was found in the memo. Please add this information.</p> <p>Response: Tier II term was removed. The TRVs are literature toxicity-based TRVs.</p>
6.	19	2.2.2	<p>New Comment: The EWG states that if a reproductive-endpoint drives a TRV for another fish, the two TRVs will be compared to make sure they are protective. An explanation must also be provided to ensure that the TRV will be protective. Please pull this information out of the footnote "e" and explain in the text.</p> <p>Response: Text was added.</p>

Comment No.	Page No.	Section No.	Comment
7.	20	2.2.2	<p>New Comment: For organic contaminants, egg residue values must be included as potential TRVs. EPA as an agency has made a policy decision to now use egg residue-effects data to develop water quality criteria based on tissue benchmarks. This approach includes using chemical residues in fish eggs. The new draft selenium water quality criterion for aquatic life is based in part on egg residues of selenium not exceeding a certain value. The rationale is that maternal transfer of selenium from parent to fish egg is responsible for much of the toxicity in larval fish attributed to selenium, including reproductive failure (i.e. eggs don't hatch) and deformities in fish embryos that do manage to hatch out of the egg. The same rationale holds for many other chemicals, particularly those organics with high log Kow values that are not rapidly metabolically transformed by fish to other compounds (e.g. PCBs, DDTs, dioxins/furans, many other legacy chlorinated insecticides).</p> <p>Response: Text was added. Based on discussions with EPA, if the lowest TRV for a COPC is based on an egg residue toxicity study, HQs using both this TRV and one with the lowest whole-body based TRV will be included in the risk characterization section. This will allow for a distinct discussion of the uncertainties associated with the egg-based TRV value. The TRVs and ultimately the HQs would also be provided as ranges which would reflect the degree of uncertainty associated with the assessment. This approach is consistent with the LDW ERA for total PCBs except that the egg residue evaluation was included in the uncertainty section. The outcome of the fish risk analysis using both whole body and egg residue TRVs would be included in both the risk characterization and risk summary sections. This approach would apply to resident fish.</p>
8.	24	3.1	<p>New Comment: EWG notes that there will be multiple uncertainty sections. Based on review of other BERAs with multiple uncertainty sections, these documents have been very difficult to read because the text raises uncertainty issues everywhere. An uncertainty summary must also be included. Please note that in this section.</p> <p>Response: Text was added. In addition, the last sentence in Section 6 notes there will be a summary of overall uncertainties in the risk conclusion section.</p>
9.	25	3.1.2	<p>New Comment: Table 2-1 lists four bioassay endpoints. Table 3-2 lists three. Table 3-2 should also list the 4 bioassay endpoints.</p> <p>Response: The polychaete survival endpoint was removed because it is not an SMS endpoint.</p>
10.	31+	3.1.3	<p>New Comment: The expectations for the risk characterization for this section must be better defined. Most sections indicate that they will discuss "magnitude of risk," etc. The risk assessment must provide simple presentations of the results so reviewers can easily determine whether there are HQs greater than one, criteria exceeded, and sediments that are toxic.</p> <p>Response: Text was added.</p>

Comment No.	Page No.	Section No.	Comment
11.	40	4.1.3	<p>New Comment: Please make changes in bold to the following paragraph: "Both new and existing water data will be used to calculate EPCs. Prior to calculating EPCs, a usability analysis of existing water data will be conducted to determine appropriate methods for combining the datasets. The site-wide EPC for each COPC will be calculated as the 95% UCL using all data in the combined dataset. ProUCL will be used to calculate the UCL as described in Section 3.2.1.</p> <p>Because individual brown rockfish foraging ranges are smaller than the EW, there is uncertainty as to whether site-wide exposures are reflective of exposures to a subset of the EW rockfish population. To assess exposure on a smaller scale, water samples at each water sampling location will also be evaluated to determine if exposures may be elevated above TRVs for a subpopulation of EW rockfish at a smaller than site-wide scale."</p> <p>Response: Text was revised and additional text was added.</p>
12.	43	5	<p>New Comment: Wide ranging receptors such as Harbor Seals may also be using areas that have similar contamination when they are outside of the East Waterway. This uncertainty factor must be described when talking about the uncertainty of the area use factor. For the Harbor Seal, the area use factor must be raised to 0.3 as used in the LDW instead of 0.1 as proposed by the EWG. This is reasonable given the close proximity of the LDW.</p> <p>Response: Based on a discussion with EPA, the site use factor was not revised. for the risk characterization was not revised. However, a site use factor of 0.3 will be evaluated in the uncertainty section.</p>